# Animation-First Philosophy

This document summarizes an animation-first philosophy for spline patch modeling, inspired by Martin Hash's spline mesh and subdivision surface concepts. Rather than treating modeling as static geometry creation, this philosophy places deformation, rigging, and expressive animation at the center of the process.

## 1. Model for Animation First

Topology exists to deform convincingly. A beautiful static mesh that animates poorly is a failed model.

## 2. Control Points Must Lie on the Surface

The artist manipulates the actual visible form directly, rather than an approximating control cage.

## 3. Curvature Is Primary

Spline continuity and tangent flow are more important than raw polygon or patch count.

## 4. Fewer Splines, Better Splines

A clean sparse spline structure is superior to dense corrective geometry.

## 5. Patches Must Stay Compact

Long stretched patches create instability in shading, deformation, subdivision, and rigging behavior.

## 6. Topology Should Describe Motion

Spline flow should follow muscles, bending regions, compression lines, cloth folds, and mechanical articulation.

## 7. Hooks and 5-Point Patches Are Structural Tools

Hooks and 5-point patches are deliberate topology transition mechanisms rather than mistakes.

## 8. Tangents Are Part of the Sculpt

Bias, continuity, peakedness, and smoothness are as important as control point placement.

## 9. The Surface Should Remain Readable

A model should visually communicate where it bends, twists, compresses, and stretches.

## 10. Cleanup Is Part of Modeling

Remove dangling splines, unused control points, accidental topology, and redundant groups.

## 11. Rigging Begins During Modeling

A rig should not compensate for poor topology. Good spline flow reduces rig complexity.

## 12. Deformation Quality Matters More Than Static Accuracy

Perfect anatomy in bind pose is less important than believable motion during animation.

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*This philosophy emphasizes expressive motion, intuitive control, compact spline structures, and deformation-aware topology design. It aligns naturally with spline patch workflows such as those used in Animation:Master.*